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⑦① Applicant : **Kabushiki Kaisha Toshiba**
72, Horikawa-cho Saiwai-ku
Kawasaki-shi (JP)

⑦② Inventor : **Kasahara, Akihiro, c.o. Intellectual Property Div.**
Kabushiki Kaisha Toshiba, 1-1 Shibaura 1-chome
Minato-ku, Tokyo 105 (JP)
Inventor : **Yamasaki, Hideo c.o. Intellectual Property Div.**
Kabushiki Kaisha Toshiba, 1-1 Shibaura 1-chome
Minato-ku, Tokyo 105 (JP)
Inventor : **Yamada, Akira, c.o. Intellectual Property Div.**
Kabushiki Kaisha Toshiba, 1-1 Shibaura 1-chome
Minato-ku, Tokyo 105 (JP)
Inventor : **Saito, Hiroshi, c.o. Intellectual Property Div.**
Kabushiki Kaisha Toshiba, 1-1 Shibaura 1-chome
Minato-ku, Tokyo 105 (JP)

⑦④ Representative : **Freed, Arthur Woolf et al**
MARKS & CLERK 57-60 Lincoln's Inn Fields
London WC2A 3LS (GB)

⑤④ **Optical head.**

⑤⑦ In an optical head, a light beam emitted from a semiconductor laser is guided to a carrier through a collimator lens and a beam splitter. An objective lens (4) movable along an optical axis and a mirror (41) having a oval reflecting surface are mounted on a carrier (50) which is movable along a radial direction of an optical disk. The guided light beam is reflected from the mirror (41) to the objective lens (4) and is converged on the optical disk by the objective lens (4). The rear surface of the mirror (41) is bonded to an adjusting member (15) on a straight line which pass through the center gravity of the mirror (41) and extends along the movable direction of the carrier (50).

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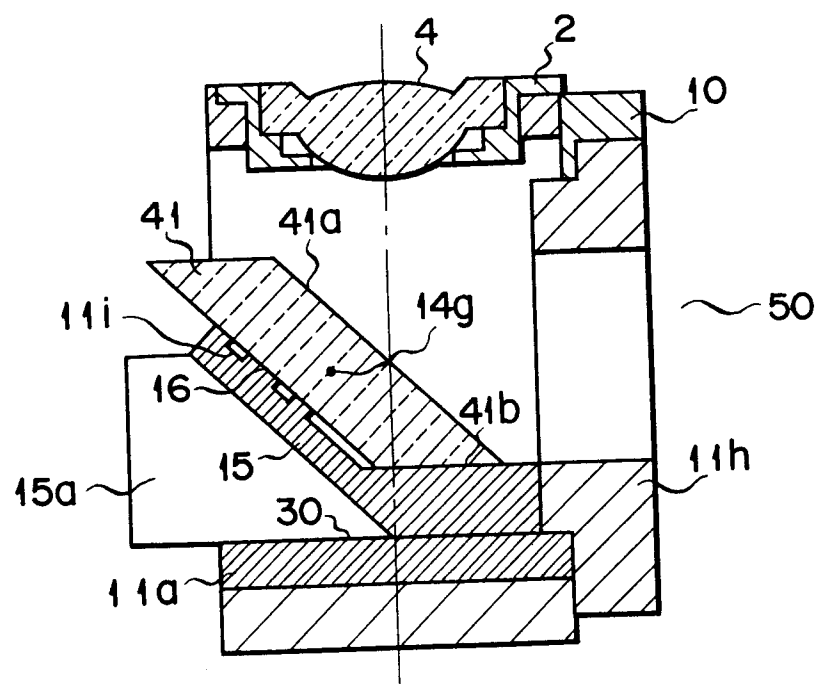


FIG. 8A



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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
A	PATENT ABSTRACTS OF JAPAN vol. 9, no. 151 (P-367) 26 June 1985, & JP-A-60 028031 (SHARP KK) 13 February 1985, * the whole document * ---	1, 7, 14	G11B7/135 G11B7/12 G11B7/08 G11B7/085
A	PATENT ABSTRACTS OF JAPAN vol. 12, no. 166 (P-704)(3013) 19 May 1988, & JP-A-62 279530 (NEC HOME ELECTRONICS LTD) 04 December 1987, * the whole document * ---	1, 7, 14	
A	PATENT ABSTRACTS OF JAPAN vol. 12, no. 8 (P-654)(2855) 12 January 1988, & JP-A-62 167630 (MITSUBISHI ELECTRIC CORP) 24 July 1987, * the whole document * ---	1, 7, 14	
A	PATENT ABSTRACTS OF JAPAN vol. 12, no. 488 (P-803) 20 December 1988, & JP-A-63 200329 (CANON INC) 18 August 1988, * the whole document * ---	1, 14	
A	PATENT ABSTRACTS OF JAPAN vol. 14, no. 150 (P-1025)(4093) 22 March 1990, & JP-A-02 010529 (MATSUSHITA ELECTRIC IND CO LTD) 16 January 1990, * the whole document * ---	1, 14	TECHNICAL FIELDS SEARCHED (Int. Cl.5) G11B7/00
A	PATENT ABSTRACTS OF JAPAN vol. 13, no. 448 (P-942)(3796) 09 October 1989, & JP-A-01 173335 (TOSHIBA CORP) 10 July 1989, * the whole document * ---	1, 14	
A,P	PATENT ABSTRACTS OF JAPAN vol. 14, no. 360 (P-1088) (4303) 3 August 1990, ---	7	
A	& JP-A-02 132647 (MITSUBISHI ELECTRIC CORP) 22 May 1990, * figure * ---		
The present search report has been drawn up for all claims			
Place of search BERLIN		Date of completion of the search 03 DECEMBER 1991	Examiner CHAUMERON, B
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application I : document cited for other reasons & : member of the same patent family, corresponding document			

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
A	PATENT ABSTRACTS OF JAPAN vol. 9, no. 62 (P-342)(1785) 19 March 1985, & JP-A-59 195347 (MATSUSHITA DENKI SANGYO K. K.) 06 November 1984, * the whole document *	7	
A	PATENT ABSTRACTS OF JAPAN vol. 11, no. 219 (P-596) 16 July 1987, & JP-A-62 036747 (PIONEER ELECTRONIC CORP) 17 February 1987, * the whole document *	7	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
The present search report has been drawn up for all claims			
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